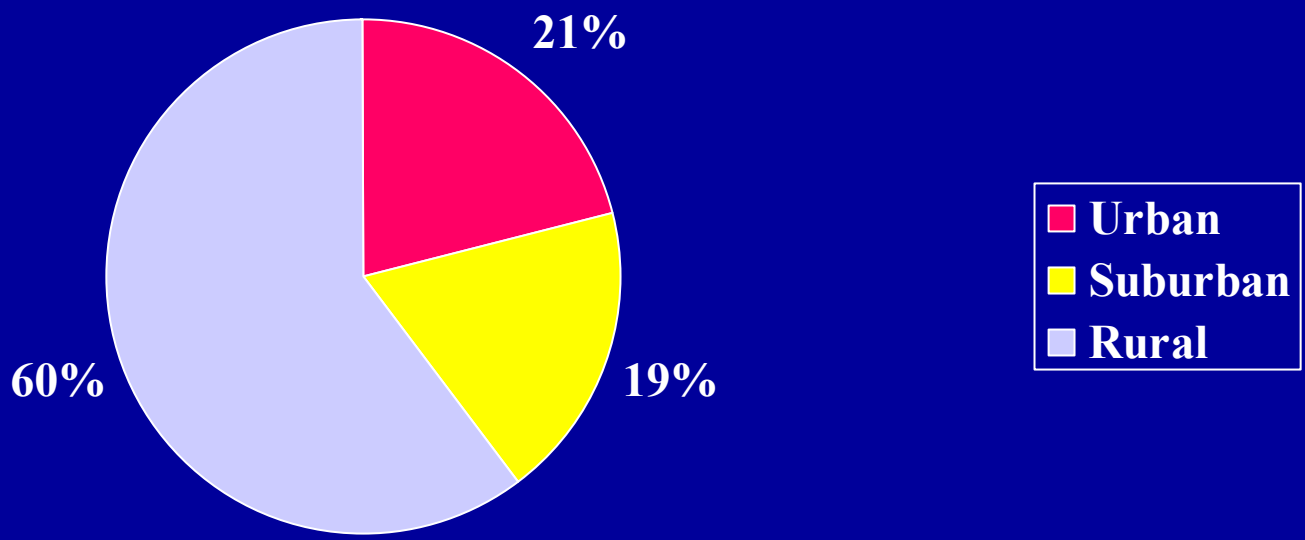
Cardiac and Stroke Survey Results

July, 2001

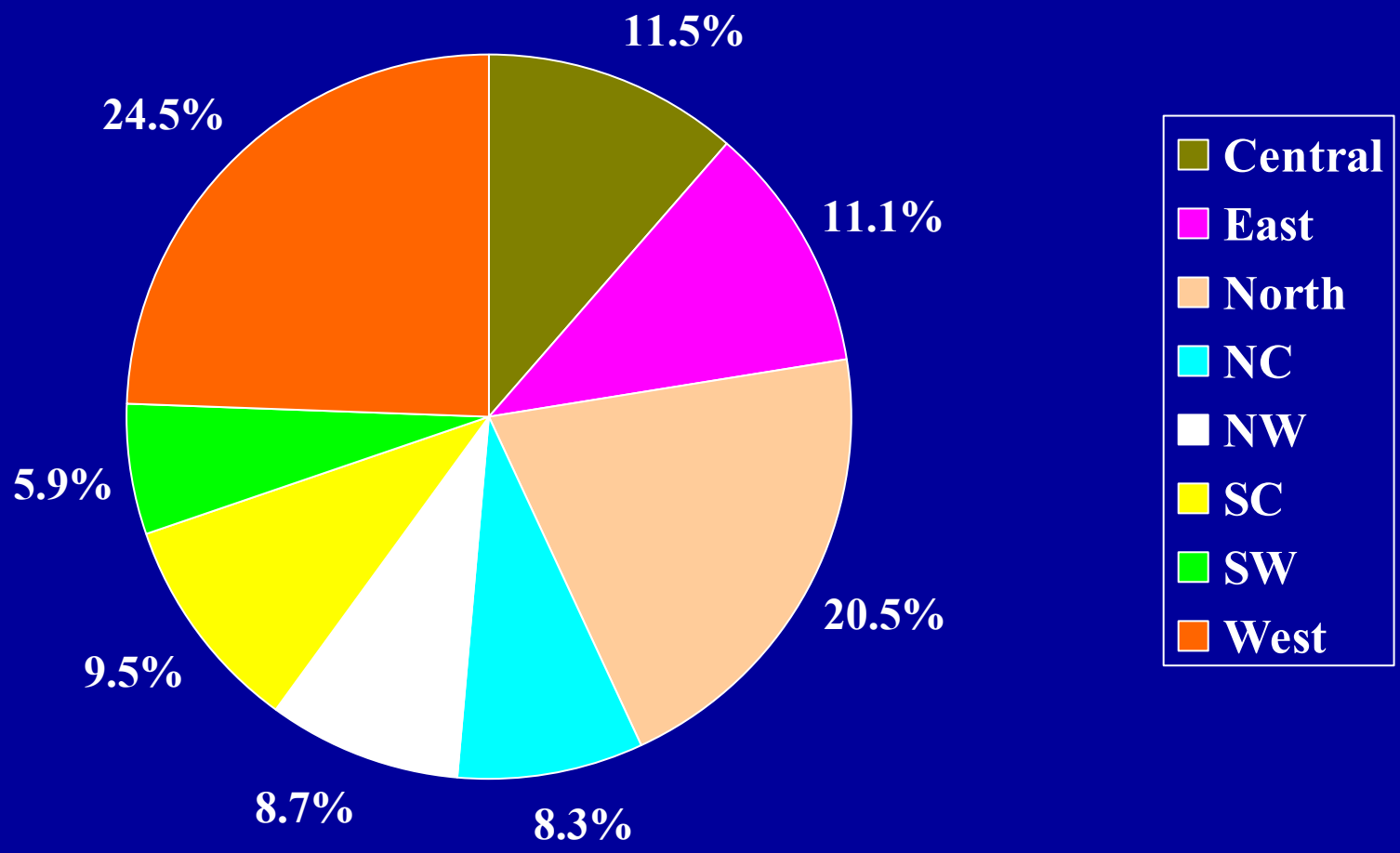
EMS Questionnaire

- Mailed to all licensed EMS agencies (500+)
- 253 questionnaires returned.
- 36 of 39 counties represented
- All regions represented

Distribution of Agencies by Ambulance Response Area



EMS Agency Response by Region



EMS Destinations,

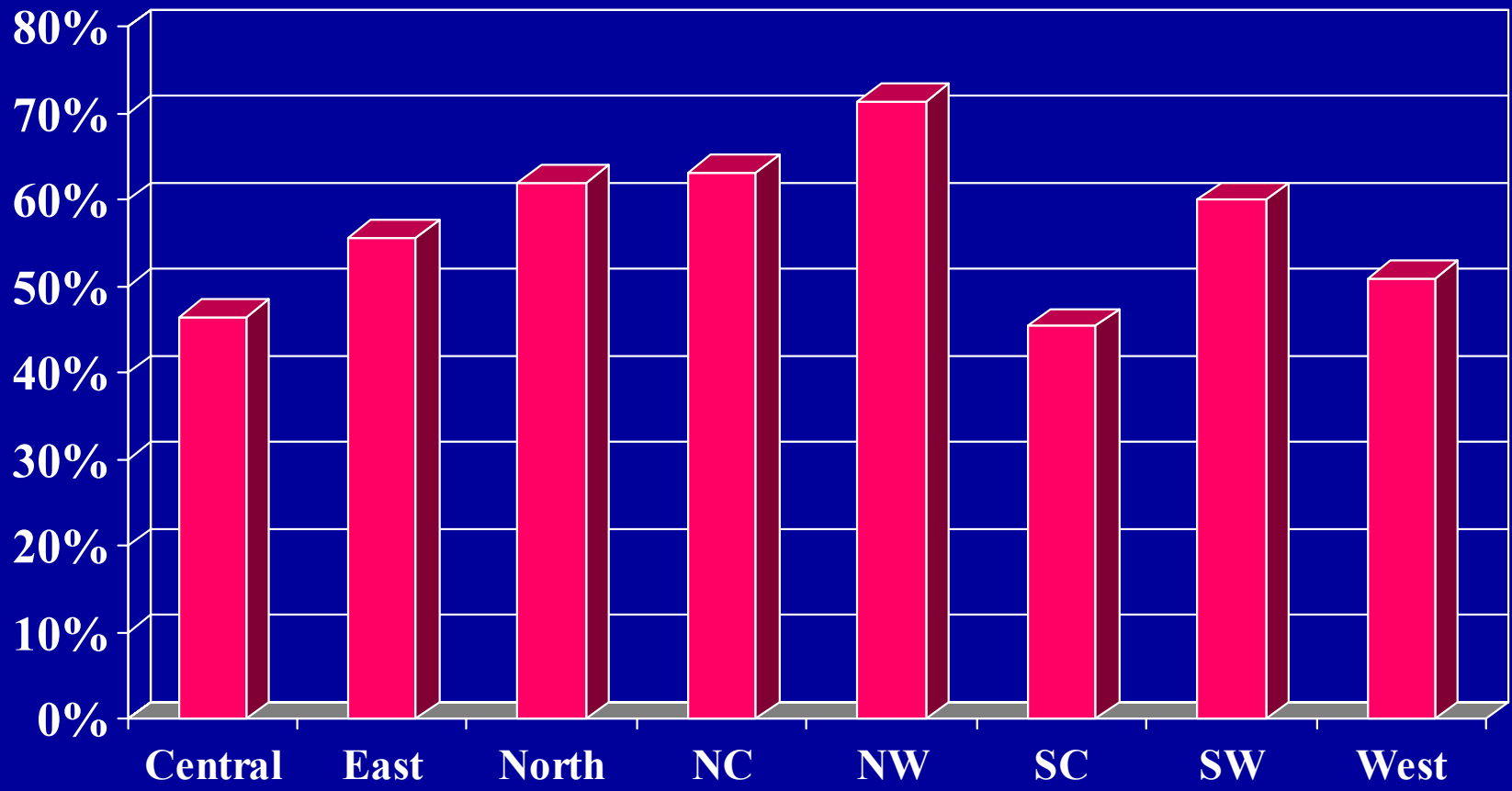
- Chest pain: 41.9% of agencies report having multiple destination hospitals.
- Stroke: 42.7% have multiple destinations
- Critical Pediatric: 38.7% report multiple.

- Conversely, roughly 3 out of 5 have one usual destination.

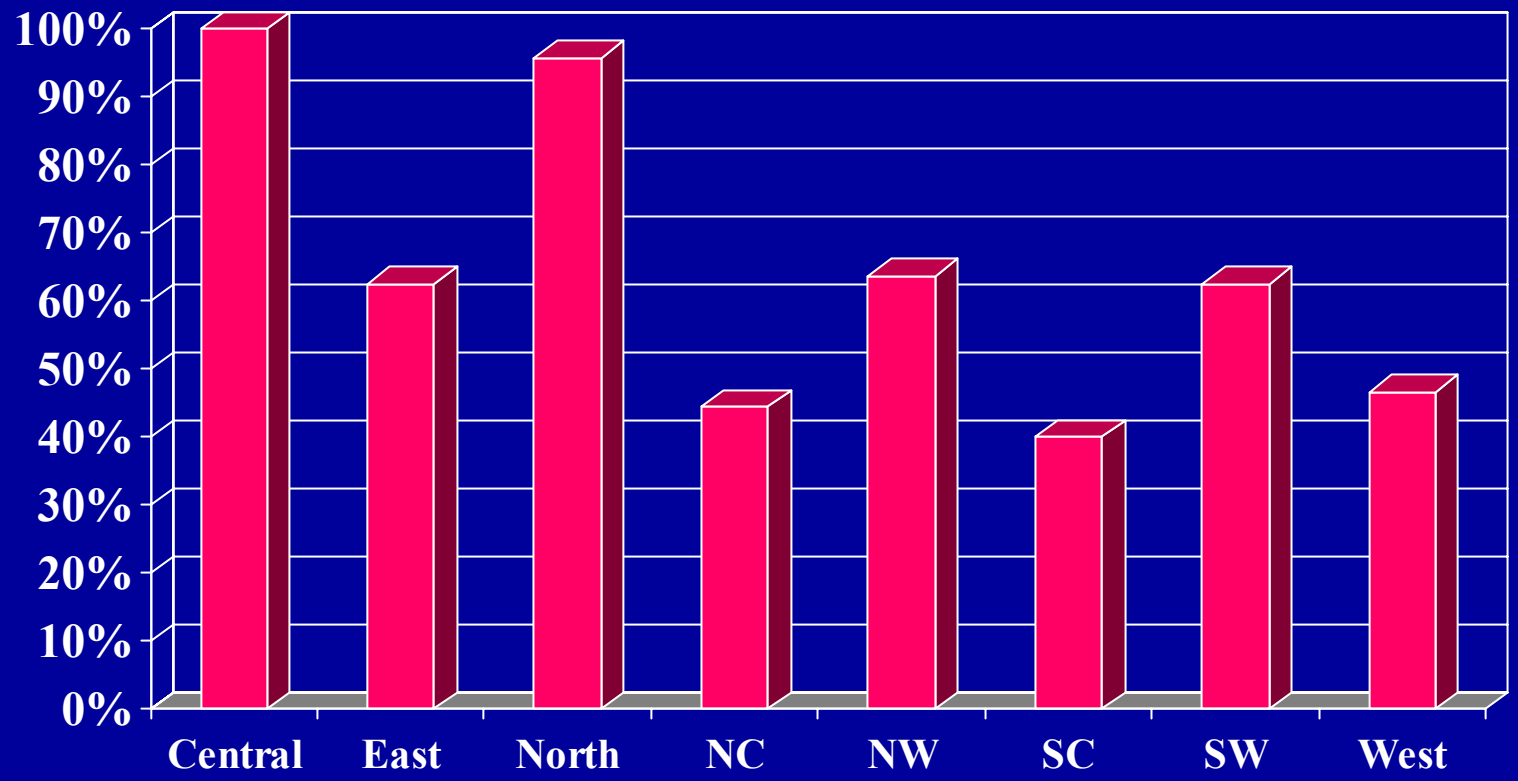
Prehospital Activation of Hospital's Emergency Cardiac Response

- EMS ability to activate ranges from a high of 93% of agencies in Central region to a low of 36.4% in Northwest region.
- However, for those that can activate, the percent of hospitals that will prepare in advance averages 31.6%.

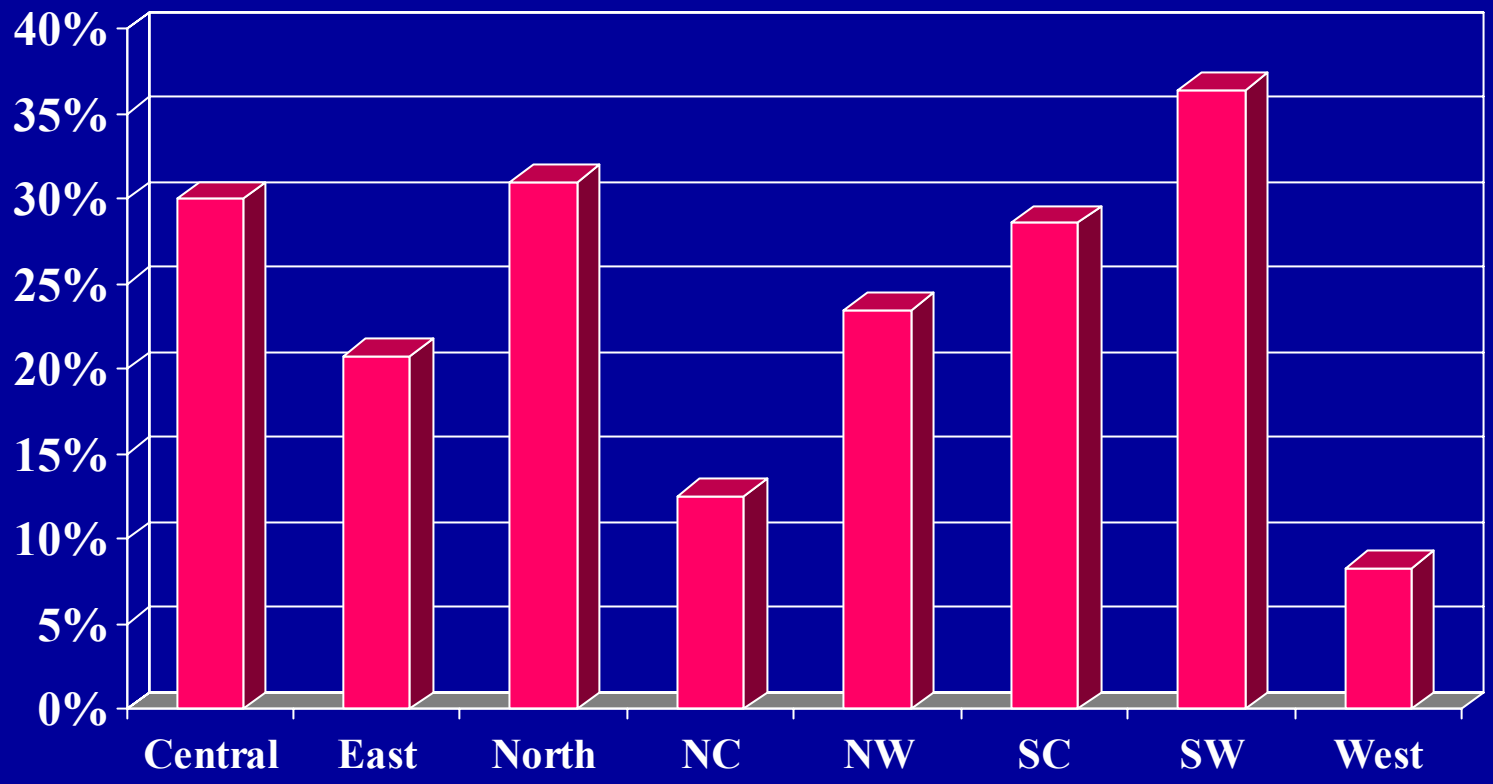
BLS Assists Patient with Nitroglycerin



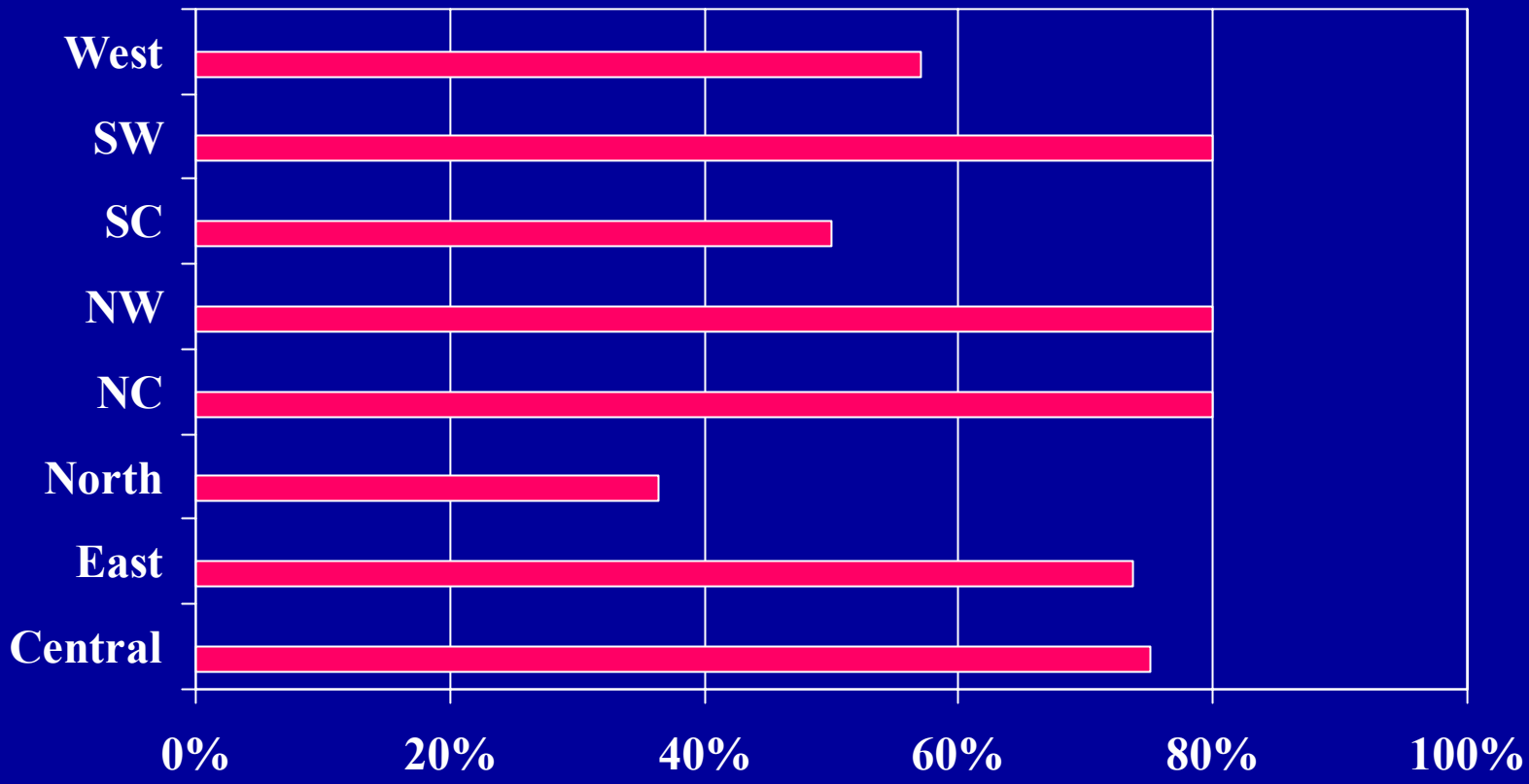
ALS Agencies performing initial 12-lead EKG



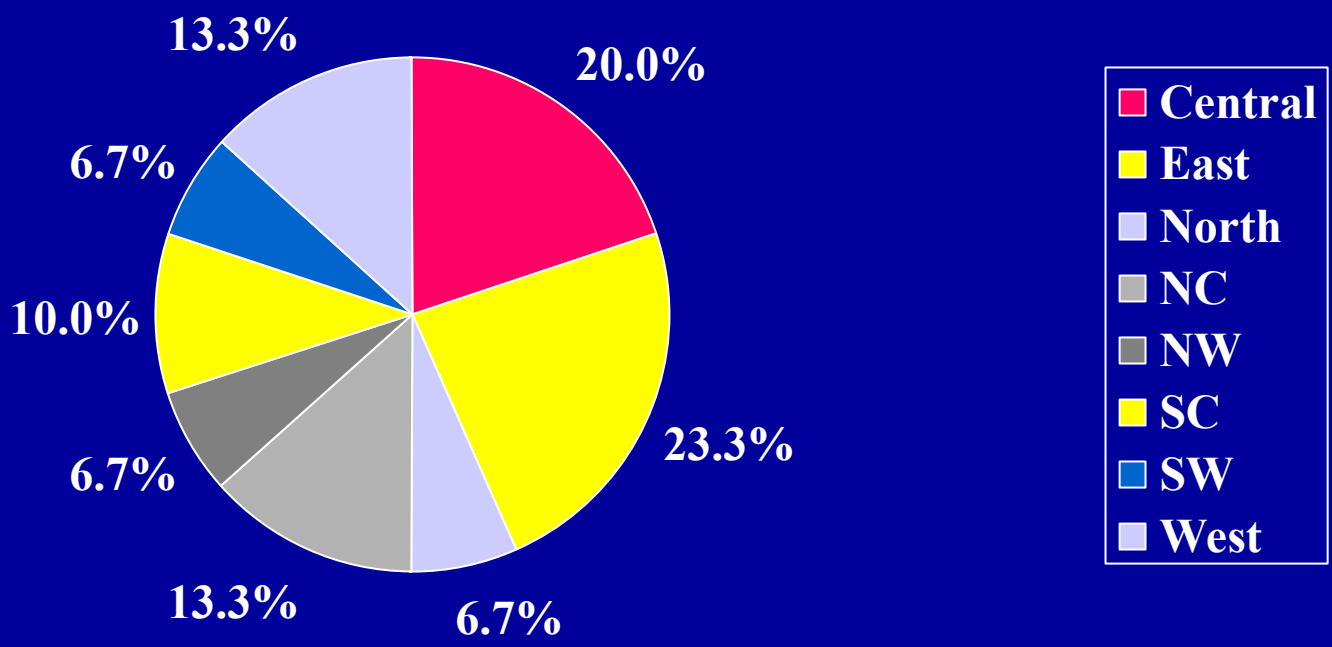
High-Risk Checklist Completed



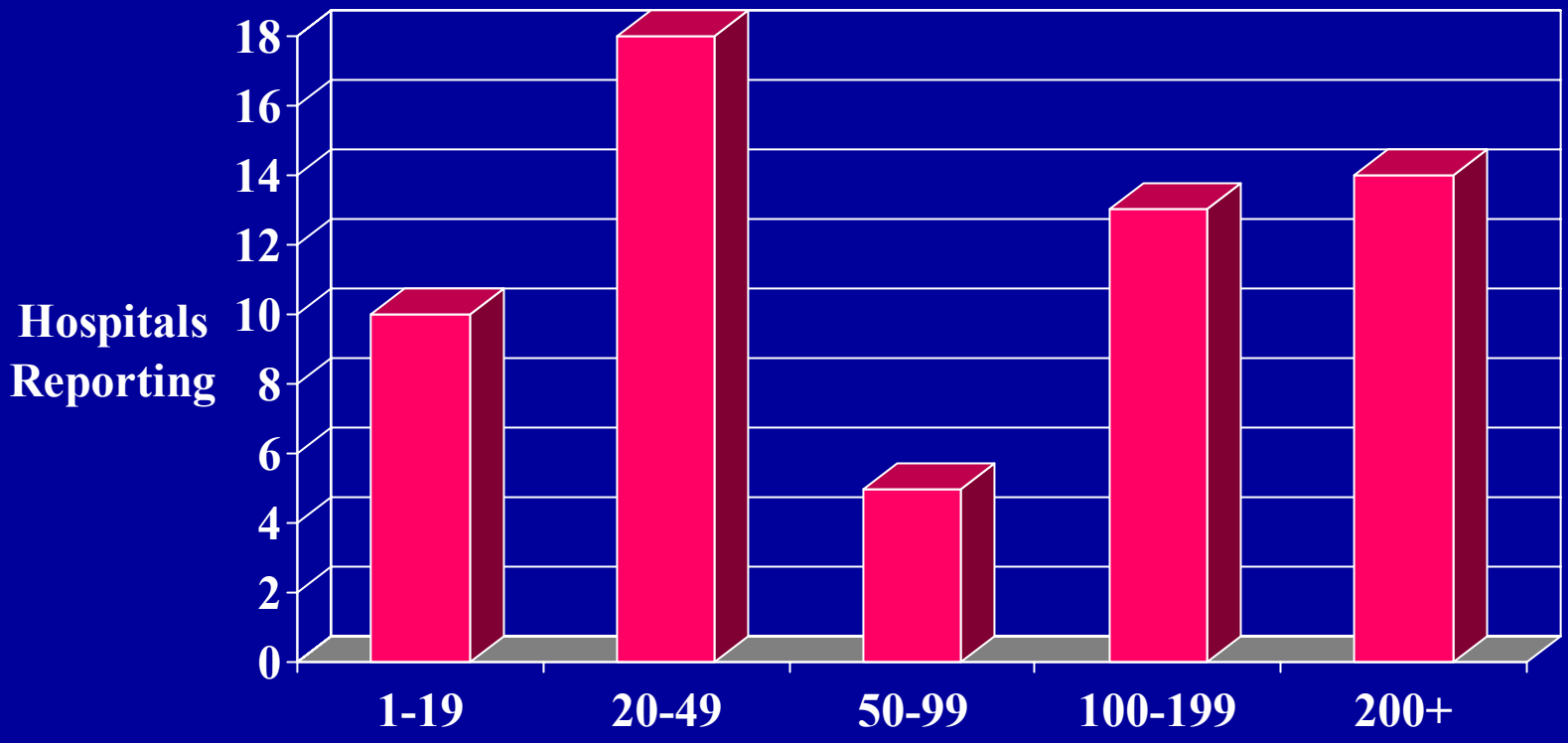
% of Hospitals Responding



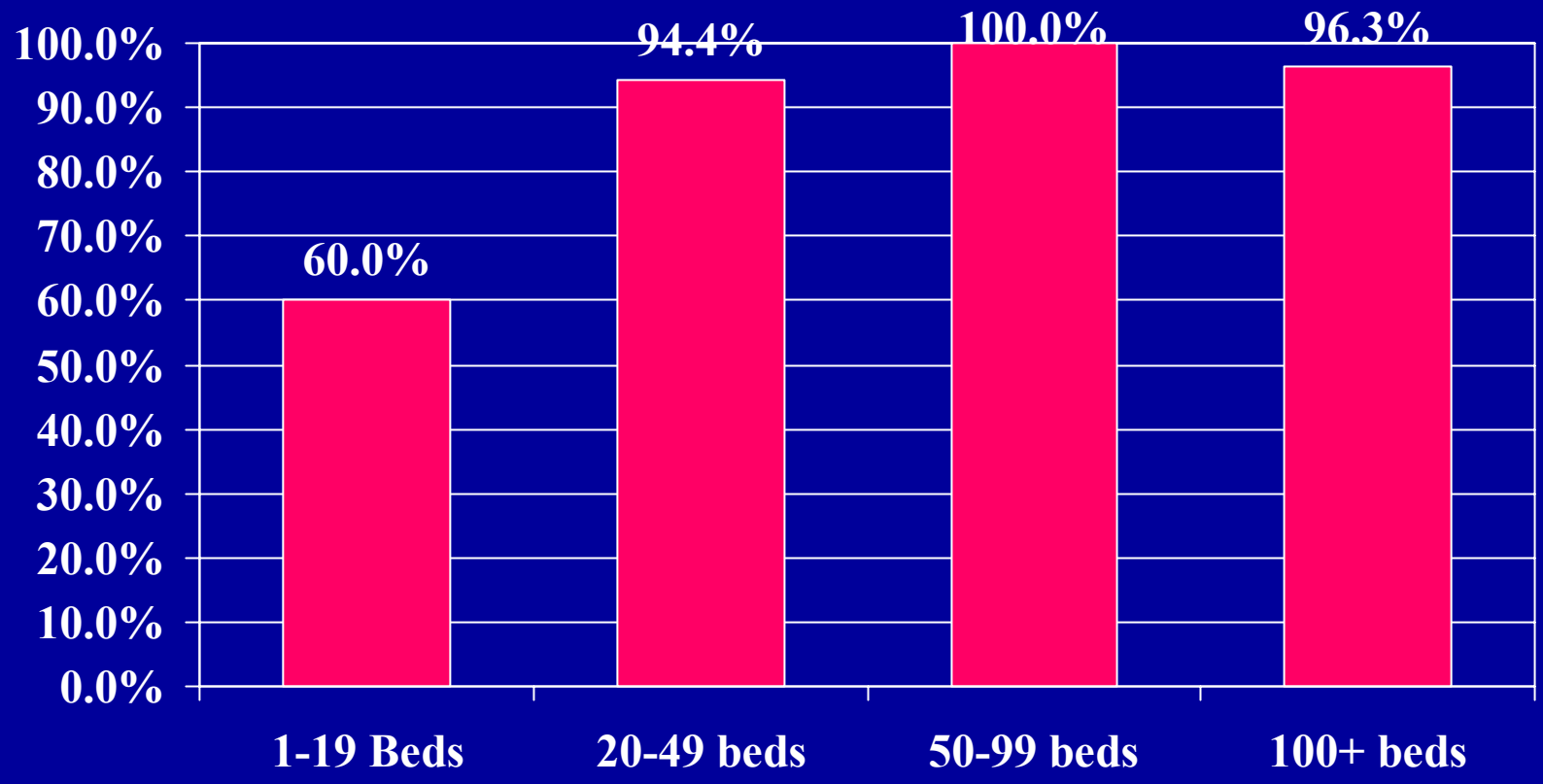
Hospital Responses by Region



Responses by Hospital Size
(Staffed Hospitals Beds)



% of Hospitals Admitting Patients with Acute Coronary Syndrome



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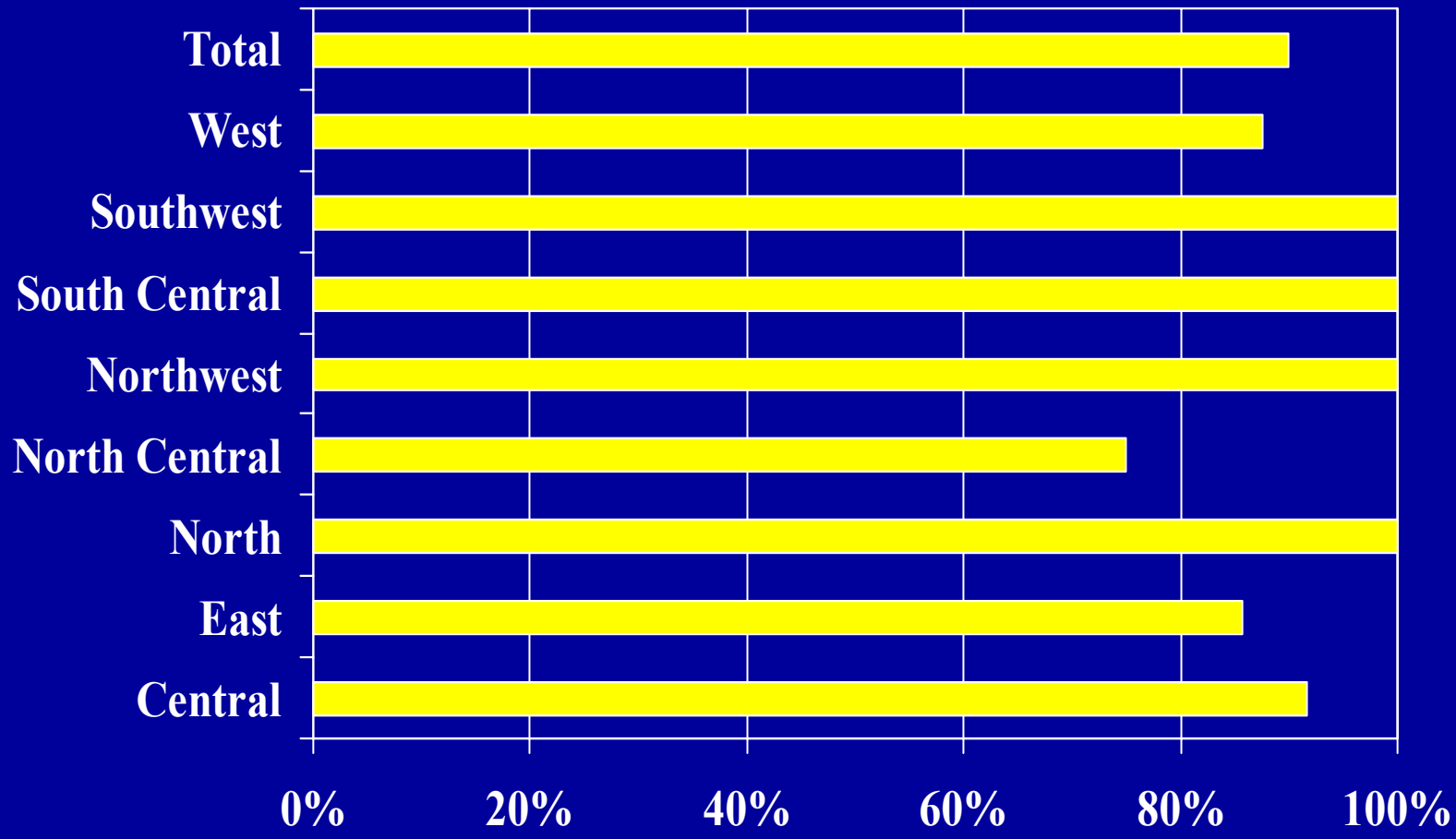
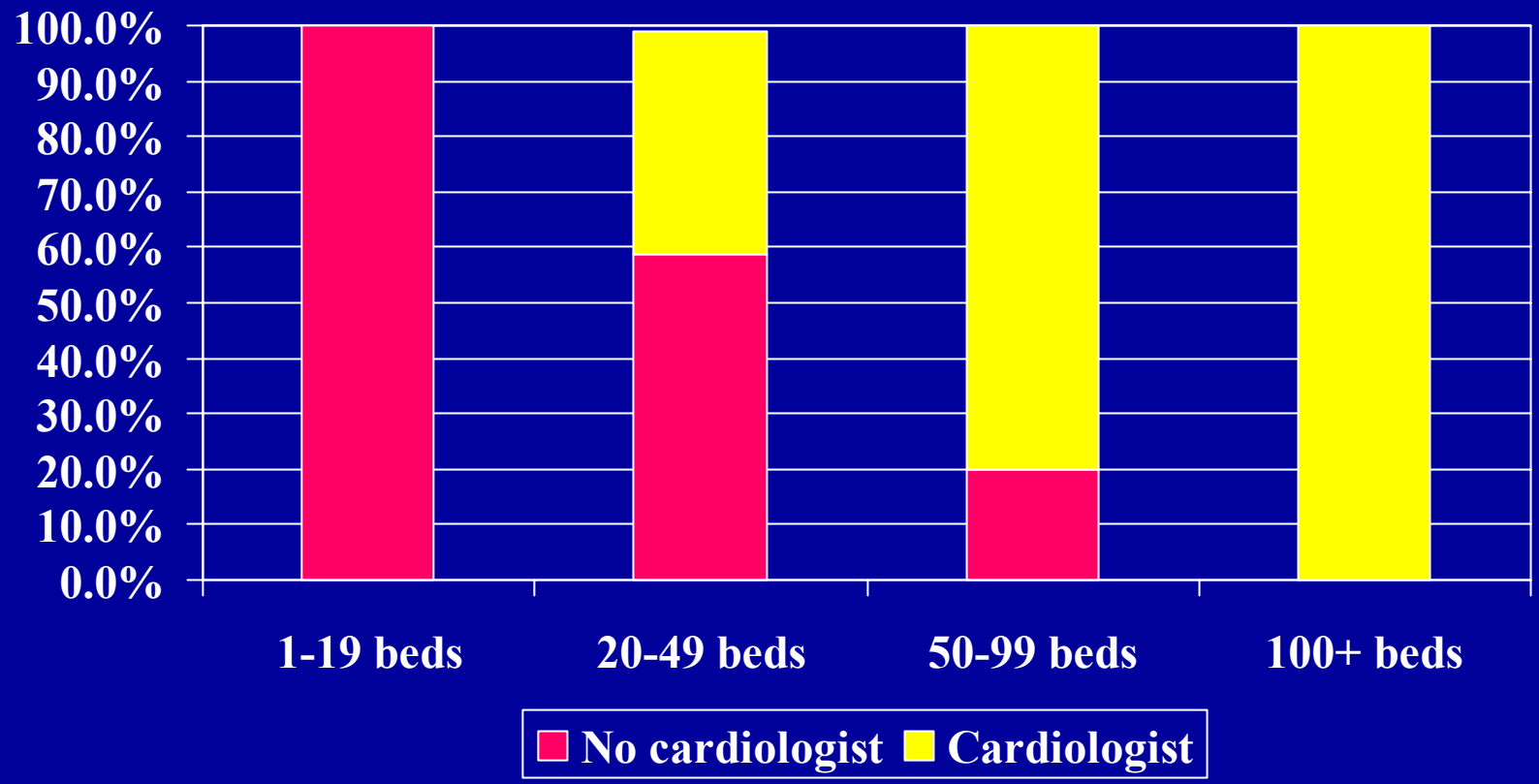


For hospitals that admit ACS patients, is a cardiologist on staff or on-call?



Cardiac Admissions

- 31.5% of admitting hospitals report not having a cardiologist on staff (in-house or on-call)
- 76.5% of admitting hospitals without a cardiologist also do not have a protocol for acute coronary syndrome, compared to 38.2% of admitting hospitals with a cardiologist.

Acute Coronary Syndrome Team

- 15% (9) of hospitals report having an Acute Coronary Syndrome Team
- All have 100+ licensed beds
- 7 out of 9 teams included the ED physician, cardiologist and pharmacist
- 6 teams included Patient Care Services
- Only 2 teams included a radiologist, and no teams included a pathologist.

Do Cardiac Teams make a difference?

- 1995-99 CHARS data (Acute MI diagnosis)
- Self-identification of Cardiac Team via questionnaire
- Main outcome: In-hospital fatality rate
- Open heart versus no open heart capability
- Limited to hospitals with 100+ beds

Results

- In ‘open heart’ hospitals with 100 beds or more, no statistically significant difference in outcomes between hospitals with Cardiac Teams compared to those without was observed.

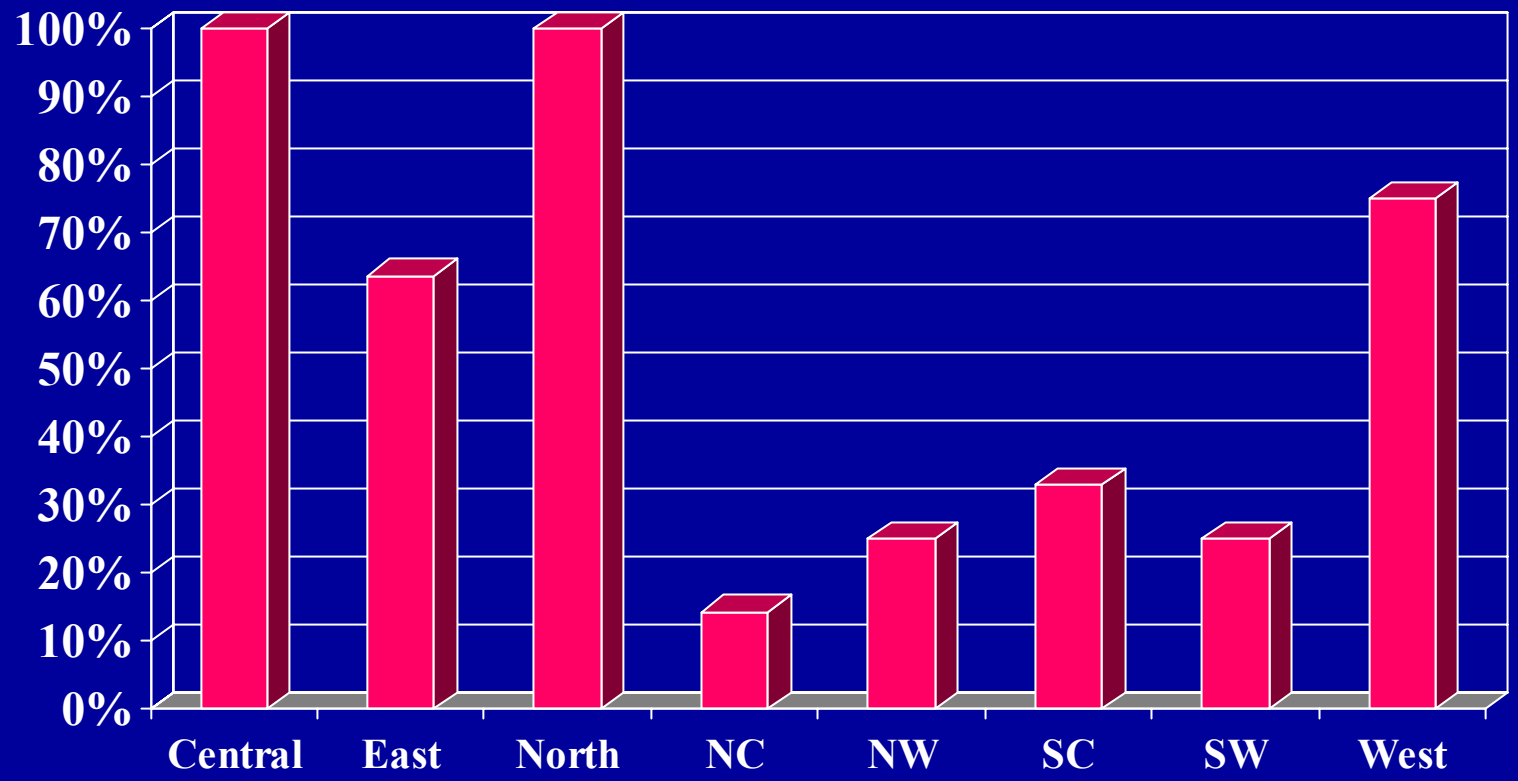
Relative risk: 0.93 (95% CI 0.85, 1.01)

Results (continued)

- In 100+ bed hospitals without ‘open heart’ capabilities, the presence of a Cardiac Team may be protective (I.e., reduced mortality)

- Relative risk: 0.84 (95% CI 0.74, 0.96)

Stroke Admitting Hospitals with a Neurologist Available



% of Hospitals with Stroke Protocols